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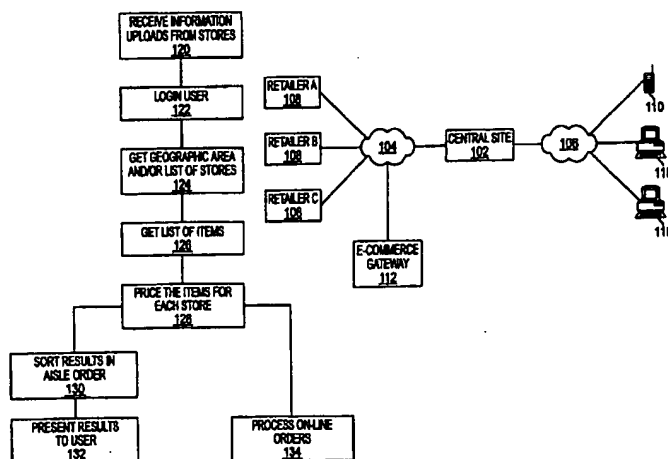
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- (71) Applicant (for all designated States except US): **FOOD-WAGON.COM, INC.** [US/US]; P.O. Box 3569, Woodbridge, CT 06525 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **REIZFELD, Leonard, C.** [—/US]; P.O. Box 3569, Woodbridge, CT 06525 (US).
- (74) Agents: **CARLSON, Stephen, C.** et al.; McDermott, Will & Emery, 600 13th Street, N.W., Washington, DC 20005-3096 (US).
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(54) Title: **SYSTEM AND METHOD FOR RETAIL PRICE INFORMATION**



(57) Abstract: A consumer needing to compare prices among more than one retailer can access a central system of product-related information for a variety of products available from a plurality of retailers. In addition to identifying products of interest, the consumer can then specify other parameters such as preferences relating to particular retailers and geographical convenience. Based on the specifications provided by the consumer, matching information from the stored product information is then presented to the consumer so that a comparison can be made by the consumer among all the retailers selling a particular product. A consumer can then, using the central system, complete an on-line purchase transaction with one of the sellers.

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SYSTEM AND METHOD FOR RETAIL PRICE INFORMATION

RELATED APPLICATIONS

The present application claims the benefit of the following provisional patent application, which is hereby incorporated by reference in its entirety: U.S. Application Serial No. 60/164,551 entitled SYSTEM AND METHOD FOR RETAIL PRICE INFORMATION, filed on November 10, 1999 by Leonard C. Reizfeld.

FIELD OF THE INVENTION

The present invention relates to the Internet and more particularly, to a system and method for retail price information.

BACKGROUND OF THE INVENTION

In many neighborhoods, people have a choice of several different grocery stores and supermarkets when shopping for their groceries. Each store typically will charge different prices for different items as well as offer less tangible benefits in terms of selection décor, cleanliness, convenience, and familiarity. In many cases it is difficult for the consumer to know whether or not the prices in that a particular supermarket or grocery store are competitive with other stores. As a result, the typical food shopper may be unaware of the best overall value among local supermarkets.

For example, some supermarkets advertise their products by featuring certain items in the local newspaper on sale. Typically, these products are loss leaders, in which the customer will save some money on the advertised item such as a steak, but spend more money on other items such as milk, eggs and bread, whose prices are higher. Thus, the total expense would be more expensive to the consumer. One way to avoid higher retail expenses is for the

expensive to the consumer. One way to avoid higher retail expenses is for the consumer to only shop for certain items at certain stores, whose prices are lower. This approach, however, requires more traveling and imposes additional gasoline and other costs as the customer travels from one grocery store to another. Furthermore, customers are often unfamiliar with the layout of other stores and waste additional time in finding the cheaper items in unfamiliar stores.

SUMMARY OF THE INVENTION

There exists a long-felt need for a way to alleviate the difficulties of retail shopping. For example, a need exists for way in which consumers can price retail items at local stores for comparison of their price competitiveness. There is also a need for helping customers find items in unfamiliar stores.

These and other needs are addressed by the present invention in which a web site is provided for receiving lists of items from the user for a specified geographic area, pricing the products at stores in the local geographic area, and presenting a list showing the total price of the products for each of the stores in the area. Consequently, the user is able to compare which stores present the best value for a given set of items, whether the set is a typical grocery run or a list for a recipe. In some embodiments, once the user has chosen a store, the web site can generate and display a list of the items aisle-by-aisle. Thus, by printing the items based on their physical location in the store, time is saved for users, for both familiar and unfamiliar stores.

More specifically, one aspect of the present invention relates to a method, software, and web site for managing retail price information. In accordance with this aspect, input indicating a plurality of items and a specified geographic area is received from a user, for example, from a web browser over the Internet, as voice commands from a wireless telephone, or as instructions

from a touch-screen terminal. Prices of the items at various stores in the specified geographic area are then determined. The stores may include grocery stores and other food retailers selling groceries, household supplies, food, and other products, as well as pharmacies, drugstores, any other drug/nutritional supplement/vitamin retailers, hardware stores, appliance stores, electronics stores, clothing stores, home improvement stores, and other retail stores. The retailer may be a "brick and mortar" establishment or an on-line retailer. Finally, a list of the items and the determined prices for at least one of the stores is presented to the user.

In various embodiments, other features may be provided. For example, the list can be sorted by aisle or other kind of location within the stores to facilitate retrieval of the items. As another example, requests to purchase the items can also be received and processed. Yet another example pertains to a recipe library in which customer can obtain a list of ingredients, as well as pricing information for the ingredients.

Another aspect of the invention involves a method, software, and web site for facilitating retail shopping. In accordance with this aspect, input from a user indicating a plurality of items is received. The locations of the items in a specific store are determined and a list of the items, in a physical order of the items in the store, is presented to the user.

Another aspect of the invention stems from the realization that many people have specific dietary or nutritional requirements. For example, some people are extremely allergic to peanuts and would have to inspect the ingredient list of most grocery items to determine if peanut oil was used. Other dietary requirements include the need for certain foods to be sugar free, meatless, Kosher, dairy free, fat free, organic, salt free, low-salt, and vegetarian. Accordingly, a method and mechanism are provided to eliminate those items that do not satisfy the user's requirements.

Still other objects and advantages of the present invention will become readily apparent from the following detailed description, simply by way of illustration of the best mode contemplated of carrying out the invention. As will be realized, the invention is capable of other and different embodiments, and its several details are capable of modifications in various obvious respects, all without departing from the invention. Accordingly, the drawing and description are to be regarded as illustrative in nature, and not as restrictive.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention is illustrated by way of example, and not by way of limitation, in the figures of the accompanying drawings and in which like reference numerals refer to similar elements and in which:

FIG. 1A is a schematic diagram illustrating a network of consumers, retailers and a central site according to one embodiment of the present invention.

FIG. 1B is a flowchart illustration the operation of one embodiment of the present invention.

FIG. 2 illustrates an exemplary web page welcome screen presented to consumers.

FIG. 3 illustrates an exemplary consumer registration screen according to one embodiment of the present invention.

FIG. 4 illustrates an exemplary data entry screen for selecting prospective retailers.

FIG. 5 illustrates an interface, according to an embodiment of the present invention, for prompting a consumer to identify products.

FIG. 6 illustrates an information screen, according to an embodiment of the present invention, for informing a consumer of comparative product pricing information.

FIG. 7 illustrates an interface, according to an embodiment of the present invention, for entering purchasing account information and selecting delivery options.

FIG. 8 illustrates an exemplary store map.

FIG. 9 illustrates a consumer-feedback screen, according to an embodiment of the present invention, that allows a consumer to provide comments and suggestions.

FIG. 9B illustrates a shopping list editor in accordance with an embodiment of the present invention.

FIG. 9C illustrates a manufacturer's savings page in accordance with an embodiment of the present invention.

FIG. 10 is a diagram that depicts a computer system that can be used to implement one embodiment of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

A method and system for providing retail pricing information and comparison pricing data to consumers are described herein. In the following description, for purposes of explanation, numerous specific details are set forth in order to provide a thorough understanding of the present invention. It will be apparent, however, to one of ordinary skill in the art that the present invention may be practiced without these specific details. In other instances, well-known structures and devices are shown in block diagram form in order to avoid unnecessarily obscuring the present invention.

SYSTEM OVERVIEW

Referring to FIG. 1A, a network that facilitates the distribution of retail price and comparison pricing information to consumers is depicted. A plurality of retailers 108 communicate with a central site 102 via a network connection

104, which is preferably a global, information network commonly known as the Internet but may include other networks, such as a local area network (LAN), a wide area network (WAN), and a virtual private network (VPN). Over respective communication paths, each of these retailers 108 upload product information to the central site 102. Product information may include data such as price, manufacturer or brand name, size, package type, or aisle location. In addition, product information may include the ingredient list for each product, nutritional information, photographs, and for medicines, drug interaction information. Other information uploaded by a retailer 108 may include information about specials or discounts for certain products that last for a limited time.

The central site 102 is preferably hosted on a web server and may be implemented, for example, on a large, single computer system or a distributed system of smaller processing units with data replication and redundancy protections. As described *infra* in greater detail, the central site 102 is configured for various data processing functions, such as receiving, storing, and managing uploaded data and associated information, receiving and responding to various services requests from consumers, determining and providing pricing and other data to consumers, and brokering transactions between the consumers 110 and the retailers 108.

The central site 102 also communicates, via a network connection 106, with various consumers 110 who are interested in accessing the stored retail data for comparison pricing and other functions. Network connection 106 is preferably the Internet but may comprise other kinds of networks, such as a local area network (LAN), a wide area network (WAN), and a virtual private network (VPN). The consumers 110 may use various kinds of terminals, including a web browser for accessing the web site by means of hypertext transmission protocol (HTTP) messages, a wireless telephone for allowing the

user to orally give requests (e.g. by voice recognition or by touch-tone key commands), or a touch-screen terminal. In addition, an e-commerce gateway 112 connected to network 104 to allow consumers 110 to order products from the retailers 108.

OPERATIONAL OVERVIEW

FIG. 1B is a flowchart depicting the operation of one embodiment of the present invention, which is illustrated with respect to a working example of facilitating shopping for items at grocery stores. The present invention, however, is not limited to grocery stores, and may be advantageously applied to other retail stores, including, but not limited to drug stores (with health and beauty aids, over-the-counter medications and prescriptions as the products instead of groceries), appliance stores, houseware stores, department stores, and any other retailing outfit for which is desirable for consumers to compare prices being offered.

At block 120, uploaded product information is received from stores and retailers 108 at the central site 102 and is stored and maintained for later retrieval and processing. Information regarding each retailer 108 uploading information is also stored, managed and maintained at the central site 102. Exemplary retailer information includes, but is not limited to, geographical location, identity, delivery options, and store layout.

Exemplary product information includes, for example, product code, quantity, price, and location with each store (e.g. aisle number). Also, information from the manufacturers of the items can be uploaded and stored at the central site 102 to provide additional value-added services to consumers. For example, ingredient information about each of the grocery items can be obtained from the manufacturers so that consumers can pre-edit their shopping lists to meet specified dietary requirements, such as dairy-free foods for lactose

intolerant individuals or peanut-free foods for those allergic to peanuts. Other information from the manufacturers may include coupons from the manufacturers so that coupon savings can automatically be applied directly to the grocery bill without having to go through the tedious process of printing or clipping physical coupons.

When the retailer and product information has been updated to the central site 102, consumers 110 who want to perform pricing comparisons among retailers 108 can access the central site 102 via a network connection 106 and are presented an interface that allows the consumer 110 to enter the criteria for the comparisons in which the consumer is interested. Upon receiving the comparative pricing data from the central site 102, the consumer 110 can then feel confident about making an informed purchase decision based on pricing, variety, location and convenience. Because the consumer 110 is already communicating with the central site 102 and can now make a purchasing decision, certain embodiments of the present invention include an e-commerce gateway 112 connected to the Internet 104 that allows the consumer 110 to order products and product delivery right from the retailers 108 through the central site 102.

At block 122, consumers 110 log in to the central site 102. In an embodiment in which the central site 102 is implemented as a web site, the network connection 106 would then be the Internet, thereby allowing consumers 110 to communicate with the central web-site via home computers, web-enabled wireless phones, personal digital assistants (PDAs), informational kiosks and other widely distributed devices. Upon contacting the central site 102, a banner page, or other welcome screen, as depicted in FIG. 2, may be presented to a consumer using a typical web browser to access the central site. This welcome screen can include language options 202 that allow a consumer

to interact with the central site in a preferred language, such as English, Spanish, and French.

After selecting the language, the consumer 110 is next presented with a registration screen, such as the one depicted in FIG. 3. Although not required for providing pricing comparison data, registration preferably allows profiles of consumers 110 to be maintained by the central site 102 to enhance consumer interaction by customizing the experience based on the consumer's transaction history, geographical location, and personal preferences. Also, registration allows a consumer to store shopping lists, recipes, and retailer preferences to be used each time, thereby eliminating the need to enter this data each time the consumer access the central site. Once initial registration is completed, subsequent accesses to the central site can simply ask for a username 302 and password 304, or other authentication means, and allow the consumer to proceed with generating pricing comparison data.

Referring back to FIG. 1B, the desired geographic area, which may include a ZIPCODE, a town, or specific list of stores, is obtained for the user. FIG. 3 also depicts a user interface that allows the user to select which geographic area the user is interested in for pricing certain retail products. A variety of user interface controls are contemplated, including a map 306 of the United States wherein a user would click somewhere on the map and the clicked location within the map 306 of the United States determines the local area of the user. Address dialog 308, which can be part of the registration procedure, allows the user to specify the user's local area by inputting an address, city, state, and/or zip code. Alternatively the user can be allowed to enter a telephone area code that determines a local area. Local area retail stores may include online retailers as well as more traditional shops around the corner.

The geographic location of the customer 110 can be then stored in a database at the central site 102 and later used in conjunction with a local retailer interface depicted in FIG. 4. The exemplary input screen of FIG. 4 includes a region 402 for specifying a distance from the consumer 110 that a retailer 108 must be located within. As the distance is specified, various retailers 108 are displayed with a checkbox 404 or other selection controls to allow a consumer to select one or more particular retailers to compare.

Referring back to FIG. 1B, the consumer is prompted to enter a shopping list for which comparison pricing data will be generated (block 126). FIGS. 5 and 6 depict, by way of example and by limitations, the type of information that are likely to be involved during the entering of the shopping list of items. The particular interfaces of FIGS. 5 and 6 are not intended to illustrate the exact or only layout or required data for entering the list of items, but are exemplary of screens and information that may be helpful in easily gathering product data from a consumer and presenting the pricing comparison data to the consumer. Alternative interfaces such as voice recognition or touch screens are also possible at the consumer location. Similarly, wireless web-access devices, which are typically lower bandwidth, may use a less graphical interface, relying instead on more text-based presentation and entry of data.

In FIG. 5, data entry areas are shown to the left that assist a consumer in identifying a product. A consumer 110 can enter a product, in one data entry region 502, by typing the product's name or generic category (e.g. soup, corn, peas, or milk) or can rely on default entries (of common items) already entered into the central site 102. Other interface enhancements, such as automatic completion based on the first few letters of a word, may also be included. Nearby data entry regions 504-508, which may be adapted to the product item entered in region 502, include options allowing a consumer to optionally select brand names, package size, and package type. The available options in these

data entry regions can also depend on the locale of the consumer as well as the retailers selected in an earlier entry screen. To assist with building a shopping list, as shown in region 518, a data entry region 510 for entering the quantity of a product can also be provided.

After entering data identifying a product, a consumer can choose to check pricing information for a individual product by selecting region 514, or can add the product to the shopping list 518. The display region 516 provides the consumer with pricing comparison data for the selected product.

After completing the shopping list 518, the consumer 110 may then have the shopping list priced at the selected stores (block 128 of FIG. 1B). In the exemplary screens of FIGS. 5 and 6, the shopping list region 518 includes a selection area 520 to calculate a total for the shopping list at each retailer. A display of the retailer-by-retailer comparison is depicted in FIG. 6. Alternatively, a running total could be maintained for each retailer and displayed in real-time as an item is added to, or deleted from, the shopping list 518.

In FIG. 6, a total cost of the shopping list is displayed 602, 604, and 606 for each retailer that carries every product on the shopping list. For those retailers that do not carry particular products, an informational screen display 608, 610, and 612 is presented alerting the consumer that particular products are unavailable and offering to calculate the total, for this retailer, using some type of substituted data. Using this information, a consumer 110 is able to determine the convenience and variety of particular retailers, consider the cost differential among these retailers, and decide which retailer to purchase the items from.

After deciding which retailer to purchase the products from, a consumer 110 still has a number of choices as a result of using the central site 102 to perform comparison shopping. The purchase of the products on the shopping list can be completed on-line (see block 134, FIG. 1B) by prompting the

consumer 110 for credit card, debit card or other account information. Depending on the delivery options provided by the chosen retailer, the consumer can also be prompted to determine if the consumer wants the products delivered by the retailer, delivered by a third party shipper, or held for pick-up. The list of products as well as account information provided by the consumer 110 is then forwarded to the retailer to complete the purchase transaction. The possibility of on-line purchasing also provides the central site 102 an opportunity to charge a percentage of the transaction total to cover the site's operating expenses.

The upper section of FIG. 7 illustrates an exemplary data entry screen for facilitating an on-line transaction as described above. Credit card information can be provided using a dialog box 704 or other account information can be identified by a selection box 702. The lower section of FIG. 7 depicts multiple data entry regions 706 and 708 that allow a user to specify particular delivery options.

In a more traditional "brick-and-mortar" purchase transaction, the consumer can also select to physically visit the retailer and purchase the products on the shopping list. In this latter scenario, the central site can further assist the consumer by generating a store map, as depicted in FIG. 8, that illustrates the layout of the retailer premises and the location of the various products on the shopping list. In this embodiment with reference to FIG. 1B, the shopping list can be sorted in order of the aisles 801, 802, 803, 804, 805, 806, 807, 808, 809 (block 130) and presented to the consumer 110 (block 132). Thus, the consumer 110 can print the list and walk through the store and conveniently pick up the items on the shopping in order, without having to scan the list multiple times in every aisle to avoid missing an item and having to go back to fetch it.

The central site 102, in addition to price comparison data, can provide other services to consumers as well. For example, if the retailers were pharmacies, provisions could be provided that allow a consumer to check if a prescription was ready for pick-up; or if the retailers were grocery stores, a consumer could check if a special order, such as a birthday cake or party-platter, was ready for pick-up. For these alternatives, a retailer would need to provide the central site 102 special product availability information in addition to routine pricing information.

To attract consumers, the central site might also provide searchable recipe archives, chat rooms to ask store personnel or other experts questions regarding products, or safety alert message boards to inform consumers of urgent information. Once a consumer 110 has selected a recipe, for example, the ingredients of that recipe can be automatically transferred to the shopping list and priced.

In another example, FIG. 9 illustrates a feedback form which might also be provided at the central site to consumers so that consumers can provide comments and suggestions 902 regarding their interactions with the central site and other retailers 904. Other enhancements may include a "related-links" page to web-sites that cater to consumers that are likely to use the central site or a coupon page with allows retailers and product manufacturers to inform consumers of special pricing related to particular products.

SHOPPING LIST EDITOR

One embodiment of the present invention provides a shopping list editor, which is illustrated in FIG. 9B. The shopping list editor allows shoppers to pre-edit their shopping lists to eliminate certain items with selected product ingredients. For example, a person with an allergy to peanuts may wish to use this feature to eliminate all grocery items made from peanuts or peanut oil. The

list generated for this person would avoid the items that include peanuts. Consequently, the shopping time in the store for this person would be reduced, because the person does not have to check the ingredient list for peanuts. This feature is also helpful for such people in checking whether the list of foods derived from a recipe in the recipe library meets their dietary requirements.

In one implementation, the shopping list editor includes a pre-specified check-list 910 and a user-specified input area 912. The pre-specified check-list 910 illustrated in FIG. 9B includes a set of common requirements such as peanut free, sugar free, meatless, Kosher, dairy free, fat free, organic, salt free, low-salt (less than ___ mg), and vegetarian, although other requirements may be included, such as pareve, suitable for passover, free-range raised, etc. Users select one or more of these requirements within the pre-specified check-list 910 by input appropriate for the user interface, such as clicking in a check-box.

The user-specified input area 912 allows users to input specific requirements to eliminate all foods with ingredients that the user enters in the user-specified input area 912. For example, if a user wishes to eliminate grocery items with tomatoes, the user would enter "tomato" into the user-specified input area 912. The shopping list editor also includes an enter button 914, which, when activated, causes those items not satisfying the requirements to be remove (e.g. by looking up the ingredients for the items in the database and comparing the ingredients with the pre-specified and user-specified check lists).

Although FIG. 9B is illustrated with regard to grocery items, the present invention is not so limited and may usefully be applied to other items. For medicines, drugs, and other pharmaceutical items, the user may specify certain ingredients to exclude (e.g. if allergic to penicillin). In addition the user, to avoid negative drug interactions, the user may list those drugs currently being taken in a drug-interaction input area (not shown).

This information for pre-screening the items may be integrated elsewhere in the web site. For example, the web server can be programmed to respond to double clicking on an item in the shopping list by displaying the nutritional or other appropriate information for the item.

MANUFACTURERS' COUPON SAVINGS

Many manufacturers of retail items, especially of groceries, offer coupons to provide an incentive for consumers to try their products. Many consumers, however, do not like to go through the often tedious process of printing and clipping coupons, and many consumers are missed because the coupon advertisements do not reach all of the consumers. Thus, conventional means of distributing coupons fail to reach as large of a consumer base as desired by the manufacturers and consumers.

Accordingly, one embodiment of the invention provides a mechanism for manufacturer's to register their coupons at the central site 102. In this embodiment, the savings for the registered coupons are automatically matched up with the user's shopping list. FIG. 9C depicts an exemplary web page that illustrates how the coupons savings may be communicated to the user. For each retailer, e.g. ABC Supermarket 920, the pre-coupon total 922 is displayed. Then, the total coupon savings 924 is displayed along with each of the automatically applied coupons in section 926. The final purchase price 928 is calculated and displayed, allowing the user to see the benefit of the manufacturer's coupons.

HARDWARE OVERVIEW

FIG. 10 is a block diagram that illustrates a computer system 1000 upon which an embodiment of the central site 102 of the present invention may be implemented. Computer system 1000 includes a bus 1002 or other

communication mechanism for communicating information, and a processor 1004 coupled with bus 1002 for processing information. Computer system 1000 also includes a main memory 1006, such as a random access memory (RAM) or other dynamic storage device, coupled to bus 1002 for storing information and instructions to be executed by processor 1004. Main memory 1006 also may be used for storing temporary variables or other intermediate information during execution of instructions to be executed by processor 1004. Computer system 1000 further includes a read only memory (ROM) 1008 or other static storage device coupled to bus 1002 for storing static information and instructions for processor 1004. A storage device 1010, such as a magnetic disk or optical disk, is provided and coupled to bus 1002 for storing information and instructions.

Computer system 1000 may be coupled via bus 1002 to a display 1012, such as a cathode ray tube (CRT), for displaying information to a computer user. An input device 1014, including alphanumeric and other keys, is coupled to bus 1002 for communicating information and command selections to processor 1004. Another type of user input device is cursor control 1016, such as a mouse, a trackball, or cursor direction keys for communicating direction information and command selections to processor 1004 and for controlling cursor movement on display 1012. This input device typically has two degrees of freedom in two axes, a first axis (e.g., x) and a second axis (e.g., y), that allows the device to specify positions in a plane.

The invention is related to the use of computer system 1000 for providing pricing comparison retail data to consumers and facilitating retail shopping. According to one embodiment of the invention, these functions are provided by computer system 1000 in response to processor 1004 executing one or more sequences of one or more instructions contained in main memory 1006. Such instructions may be read into main memory 1006 from another

computer-readable medium, such as storage device 1010. Execution of the sequences of instructions contained in main memory 1006 causes processor 1004 to perform the process steps described herein. One or more processors in a multi-processing arrangement may also be employed to execute the sequences of instructions contained in main memory 1006. In alternative embodiments, hard-wired circuitry may be used in place of or in combination with software instructions to implement the invention. Thus, embodiments of the invention are not limited to any specific combination of hardware circuitry and software.

The term "computer-readable medium" as used herein refers to any medium that participates in providing instructions to processor 1004 for execution. Such a medium may take many forms, including but not limited to, non-volatile media, volatile media, and transmission media. Non-volatile media include, for example, optical or magnetic disks, such as storage device 1010. Volatile media include dynamic memory, such as main memory 1006. Transmission media include coaxial cables, copper wire and fiber optics, including the wires that comprise bus 1002. Transmission media can also take the form of acoustic or light waves, such as those generated during radio frequency (RF) and infrared (IR) data communications. Common forms of computer-readable media include, for example, a floppy disk, a flexible disk, hard disk, magnetic tape, any other magnetic medium, a CD-ROM, DVD, any other optical medium, punch cards, paper tape, any other physical medium with patterns of holes, a RAM, a PROM, and EPROM, a FLASH-EPROM, any other memory chip or cartridge, a carrier wave as described hereinafter, or any other medium from which a computer can read.

Various forms of computer readable media may be involved in carrying one or more sequences of one or more instructions to processor 1004 for execution. For example, the instructions may initially be borne on a magnetic

disk of a remote computer. The remote computer can load the instructions into its dynamic memory and send the instructions over a telephone line using a modem. A modem local to computer system 1000 can receive the data on the telephone line and use an infrared transmitter to convert the data to an infrared signal. An infrared detector coupled to bus 1002 can receive the data carried in the infrared signal and place the data on bus 1002. Bus 1002 carries the data to main memory 1006, from which processor 1004 retrieves and executes the instructions. The instructions received by main memory 1006 may optionally be stored on storage device 1010 either before or after execution by processor 1004.

Computer system 1000 also includes a communication interface 1018 coupled to bus 1002. Communication interface 1018 provides a two-way data communication coupling to a network link 1020 that is connected to a local network 1022. For example, communication interface 1018 may be an integrated services digital network (ISDN) card or a modem to provide a data communication connection to a corresponding type of telephone line. As another example, communication interface 1018 may be a local area network (LAN) card to provide a data communication connection to a compatible LAN. Wireless links may also be implemented. In any such implementation, communication interface 1018 sends and receives electrical, electromagnetic or optical signals that carry digital data streams representing various types of information.

Network link 1020 typically provides data communication through one or more networks to other data devices. For example, network link 1020 may provide a connection through local network 1022 to a host computer 1024 or to data equipment operated by an Internet Service Provider (ISP) 1026. ISP 1026 in turn provides data communication services through the worldwide packet data communication network, now commonly referred to as the "Internet" 1028.

Local network 1022 and Internet 1028 both use electrical, electromagnetic or optical signals that carry digital data streams. The signals through the various networks and the signals on network link 1020 and through communication interface 1018, which carry the digital data to and from computer system 1000, are exemplary forms of carrier waves transporting the information.

Computer system 1000 can send messages and receive data, including program code, through the network(s), network link 1020, and communication interface 1018. In the Internet example, a server 1030 might transmit a requested code for an application program through Internet 1028, ISP 1026, local network 1022 and communication interface 1018. In accordance with the invention, one such downloaded application provides for storing and retrieving persistent objects as described herein. The received code may be executed by processor 1004 as it is received, and/or stored in storage device 1010, or other non-volatile storage for later execution. In this manner, computer system 1000 may obtain application code in the form of a carrier wave.

While this invention has been described in connection with what is presently considered to be the most practical and preferred embodiment, it is to be understood that the invention is not limited to the disclosed embodiment, but on the contrary, is intended to cover various modifications and equivalent arrangements included within the spirit and scope of the appended claims. The invention is capable of other and different embodiments and its several details are capable of modifications in various obvious respects, all without departing from the invention. Accordingly, the drawings and description are to be regarded as illustrative in nature, and not as restrictive.

CLAIMS

WHAT IS CLAIMED IS:

1. A method for managing retail price information, comprising the steps of:
receiving input from a user indicating a plurality of items and a specified
geographic area;
determining respective prices of the items at a plurality of stores in the
specified geographic area; and
presenting a list of the items and the determined prices for at least one of
the stores to the user.
2. The method according to claim 1, wherein the stores include food
retailers.
3. The method according to claim 1, wherein the stores include
drug/nutritional supplement/vitamin retailers.
4. The method according to claim 1, further comprising the step of sorting
the list of items and the determined prices based on physical locations of the
items in said at least one of the stores.
5. The method according to claim 1, further comprising the steps of:
receiving an order from the user to purchase one or more of the items; and
submitting the order to one of the stores in response to said receiving the
order.
6. The method according to claim 1, wherein the input indicates a recipe
specifying the items as ingredients.
7. The method according to claim 1, wherein the input indicates respective
generic descriptions of the items.
8. The method according to claim 1, wherein the input indicating the items
includes input indicating respective brand-name descriptions of the items.

9. The method according to claim 1, wherein the step of receiving the input includes receiving hypertext transmission protocol (HTTP) messages from a web browser.

10. The method according to claim 1, wherein the step of receiving the input includes receiving voice instructions from the user.

11. The method according to claim 1, wherein the step of receiving the input includes receiving touch screen commands.

12. The method according to claim 1, wherein the step of presenting includes the steps of
presenting a plurality of lists of the items and the determined prices for a corresponding plurality of the stores to the user;
presenting a plurality of total prices corresponding to the lists.

13. The method according to claim 1, further comprising the step of:
receiving input indicating one or more requirements that the items are to satisfy;
eliminating said items that do not satisfy the one or more requirements.

14. The method according to claim 13, wherein the set of requirements include at least one of peanut free, sugar free, meatless, Kosher, pareve, dairy free, fat free, organic, salt free, low-salt, vegetarian, or lacking a specified ingredient.

15. The method according to claim 13, wherein the set of requirements includes a non-interaction with a specified drug.

16. The method according to claim 1, further comprising the steps of:
accessing a database storing information concerning manufacturer coupons for the items; and
determining coupon savings for the items based on the information concerning the manufacturers coupons.

17. A method for facilitating retail shopping, comprising the steps of:

receiving input from a user indicating a plurality of items;
determining locations of the items in a specified store; and
presenting a list of the items in a physical order of the items in the store.

18. The method according to claim 17, wherein the locations comprise aisles.

19. A method for facilitating retail shopping, comprising the steps of:
receiving input from a user indicating a plurality of items;
receiving input from the user indicating a set of one or more requirements
for the items; and
eliminating those of the items that do not satisfy the set of the one or more
requirements;
presenting a list of the items to the user.

20. The method according to claim 19, wherein the set of requirements include at least one of peanut free, sugar free, meatless, Kosher, pareve, dairy free, fat free, organic, salt free, low-salt, vegetarian, or lacking a specified ingredient.

21. The method according to claim 19, wherein the set of requirements includes a non-interaction with a specified drug.

22. A computer-readable medium bearing instructions for managing retail price information, said instructions being arranged to cause one or more processors upon execution thereby to perform the steps of:

receiving input from a user indicating a plurality of items and a specified geographic area;
determining respective prices of the items at a plurality of stores in the specified geographic area; and
presenting a list of the items and the determined prices for at least one of the stores to the user.

23. A computer-readable medium bearing instructions for facilitating retail shopping, said instructions being arranged to cause one or more processors upon execution thereby to perform the steps of:

- receiving input from a user indicating a plurality of items;
- determining locations of the items in a specified store; and
- presenting a list of the items in a physical order of the items in the store.

24. A computer system for managing retail price information, comprising:
means for receiving input from a user indicating a plurality of items and a
specified geographic area;

means for determining respective prices of the items at a plurality of stores
in the specified geographic area; and

means for presenting a list of the items and the determined prices for at
least one of the stores to the user.

25. A computer system for facilitating retail shopping, comprising:

means for receiving input from a user indicating a plurality of items;

means for determining locations of the items in a specified store; and

means for presenting a list of the items in a physical order of the items in
the store.

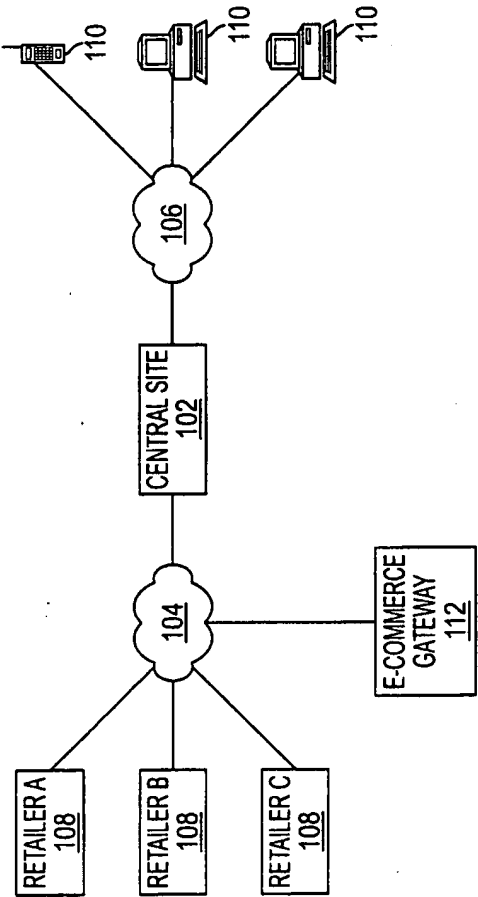


FIG. 1A

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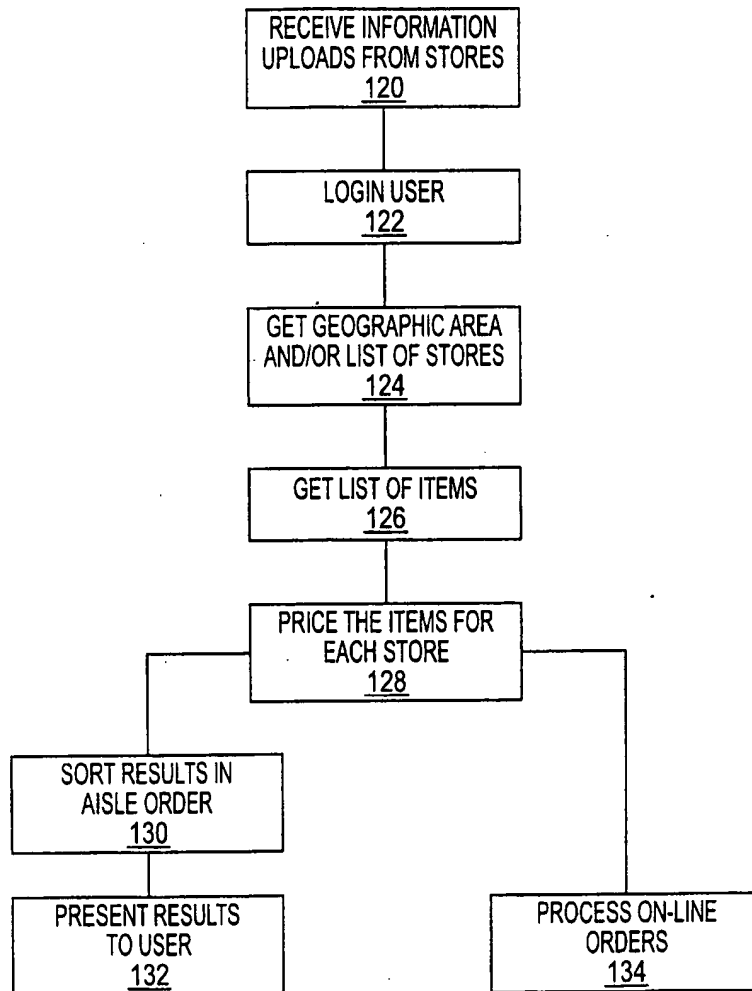


FIG. 1B

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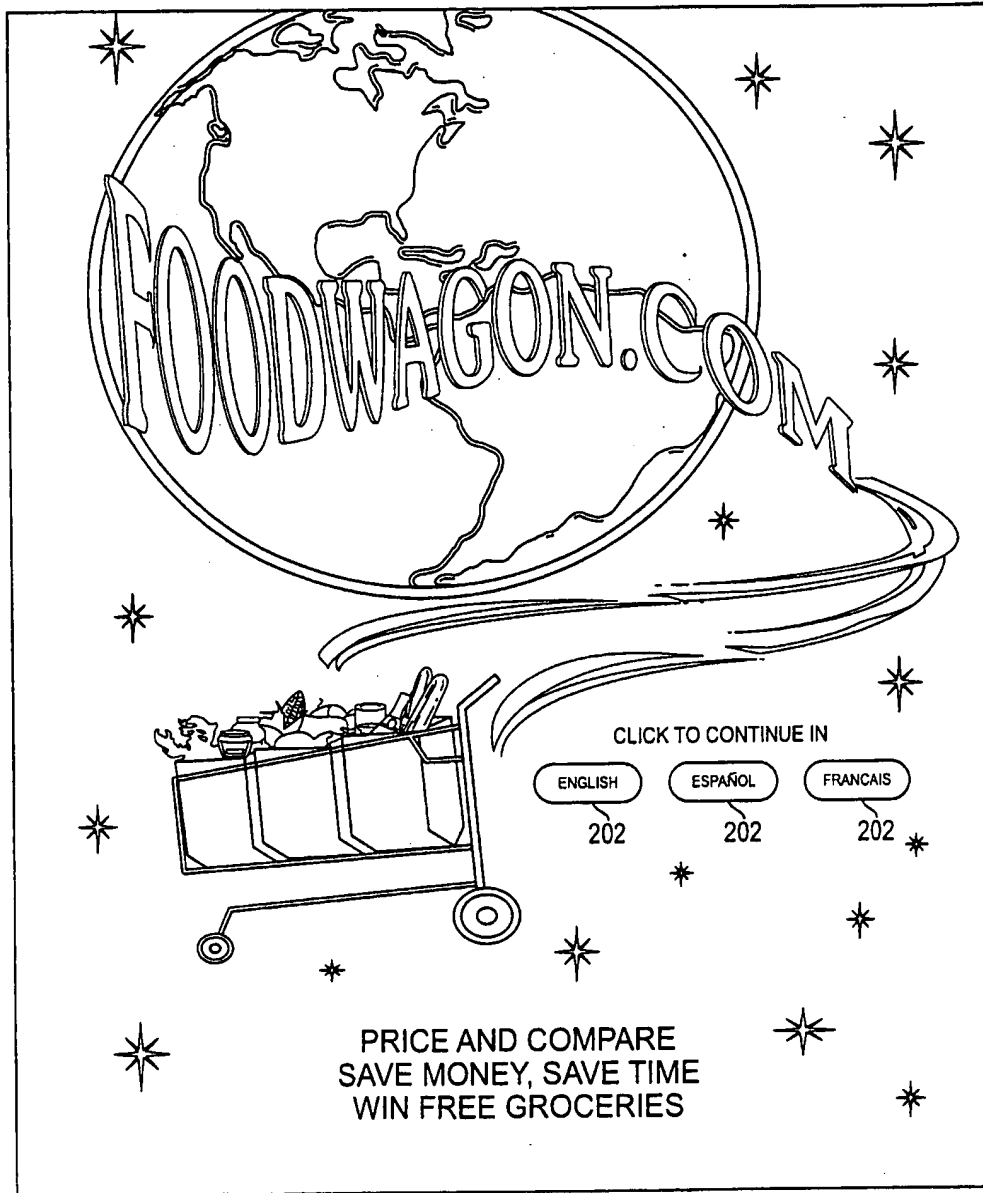


FIG. 2

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REGISTRATION PAGE

SAVE TIME: REGISTER YOUR LOCATION WITH FOODWAGON.COM AND GET YOUR FREE
I.D. AND PASSWORD

PLEASE REGISTER ME WITH THE FOLLOWING: (PLEASE WRITE DOWN YOUR USER NAME AND
PASSWORD IN CASE YOU FORGET THEM)

USER NAME

MY PASSWORD

PLEASE FILL IN THE FOLLOWING INFORMATION

STREET ADDRESS

CITY

STATE ZIP CODE

308

306

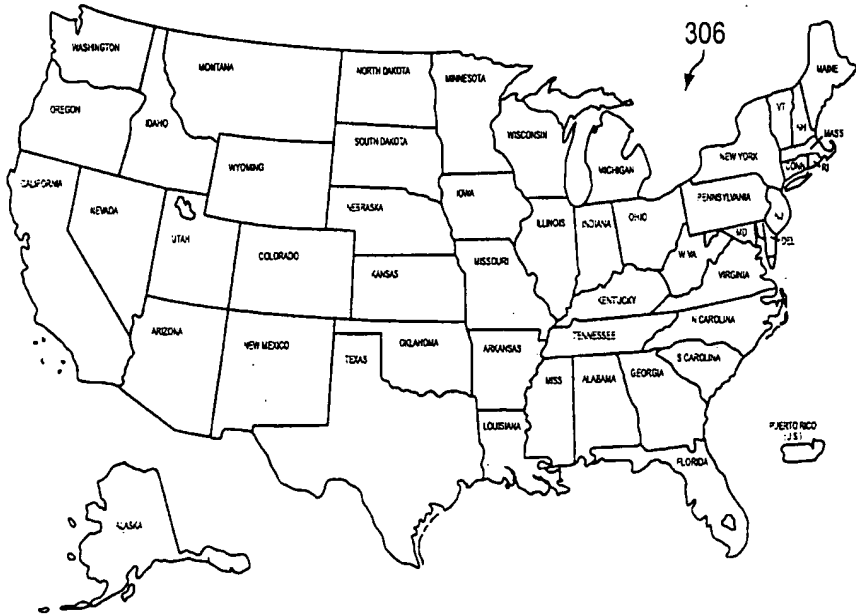


FIG. 3

SUBSTITUTE SHEET (RULE 26)

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FOOD RETAILERS IN YOUR AREA

402

PARTICIPATING FOOD RETAILERS WITHIN 5 ▲▼ MILES OF MY LOCATION

SELECT WHICH FOOD RETAILERS YOU WISH TO COMPARE

ABC SUPERMARKET <input type="checkbox"/> 404	DEF SUPERMARKET <input type="checkbox"/> 404
XYZ SUPERMARKET <input type="checkbox"/> 404	WIL SUPERMARKET <input type="checkbox"/> 404
HIJ SUPERMARKET <input type="checkbox"/> 404	OPQ SUPERMARKET <input type="checkbox"/> 404
ALL OF THE ABOVE <input type="checkbox"/> 404	

FIG. 4

FIG. 5

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ABC SUPERMARKET 602	
All Items on Shopping List Available	TOTAL: \$8.85

XYZ SUPERMARKET 604	
All Items on Shopping List Available	TOTAL: \$9.95

HIJ SUPERMARKET 606	
All Items on Shopping List Available	TOTAL: \$9.98

OPQ SUPERMARKET 608													
<table border="1"><thead><tr><th>ITEM NAME</th><th>BRAND</th><th>SIZE</th><th>PRICE</th></tr></thead><tbody><tr><td>MILK</td><td>HOOD</td><td>GAL.</td><td>N/A*</td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></tbody></table>		ITEM NAME	BRAND	SIZE	PRICE	MILK	HOOD	GAL.	N/A*				
ITEM NAME	BRAND	SIZE	PRICE										
MILK	HOOD	GAL.	N/A*										
*ITEM NOT AVAILABLE ADD LEAST EXPENSIVE COMPARISON ITEM													
TOTAL: \$													

DEF SUPERMARKET 610													
<table border="1"><thead><tr><th>ITEM NAME</th><th>BRAND</th><th>SIZE</th><th>PRICE</th></tr></thead><tbody><tr><td>SOUP</td><td>STORE</td><td>8 oz.</td><td>N/A*</td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></tbody></table>		ITEM NAME	BRAND	SIZE	PRICE	SOUP	STORE	8 oz.	N/A*				
ITEM NAME	BRAND	SIZE	PRICE										
SOUP	STORE	8 oz.	N/A*										
*ITEM NOT AVAILABLE ADD LEAST EXPENSIVE COMPARISON ITEM													
TOTAL: \$													

WIL SUPERMARKET 612													
<table border="1"><thead><tr><th>ITEM NAME</th><th>BRAND</th><th>SIZE</th><th>PRICE</th></tr></thead><tbody><tr><td>SOUP</td><td>STORE</td><td>8 oz.</td><td>N/A*</td></tr><tr><td>CORN</td><td>DELMONTE</td><td>10 oz.</td><td>N/A*</td></tr></tbody></table>		ITEM NAME	BRAND	SIZE	PRICE	SOUP	STORE	8 oz.	N/A*	CORN	DELMONTE	10 oz.	N/A*
ITEM NAME	BRAND	SIZE	PRICE										
SOUP	STORE	8 oz.	N/A*										
CORN	DELMONTE	10 oz.	N/A*										
*ITEM NOT AVAILABLE ADD LEAST EXPENSIVE COMPARISON ITEM													
TOTAL: \$													

FIG. 6

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PAYMENT METHOD

Charge My FoodWagon.Com/MedicineWagon.Com Account

Charge My Credit Card

Credit Card VISA

Account Number: ----- Expiration Date: / /

SAVE MY CREDIT CARD INFORMATION

706

708

WILL PICK UP AT STORE

Location of Pickup

Date

Time Frame

A.M.

ENTER

DELIVERY SERVICE

ABC - Delivery

Date

Time Frame

A.M.

ENTER

FIG. 7

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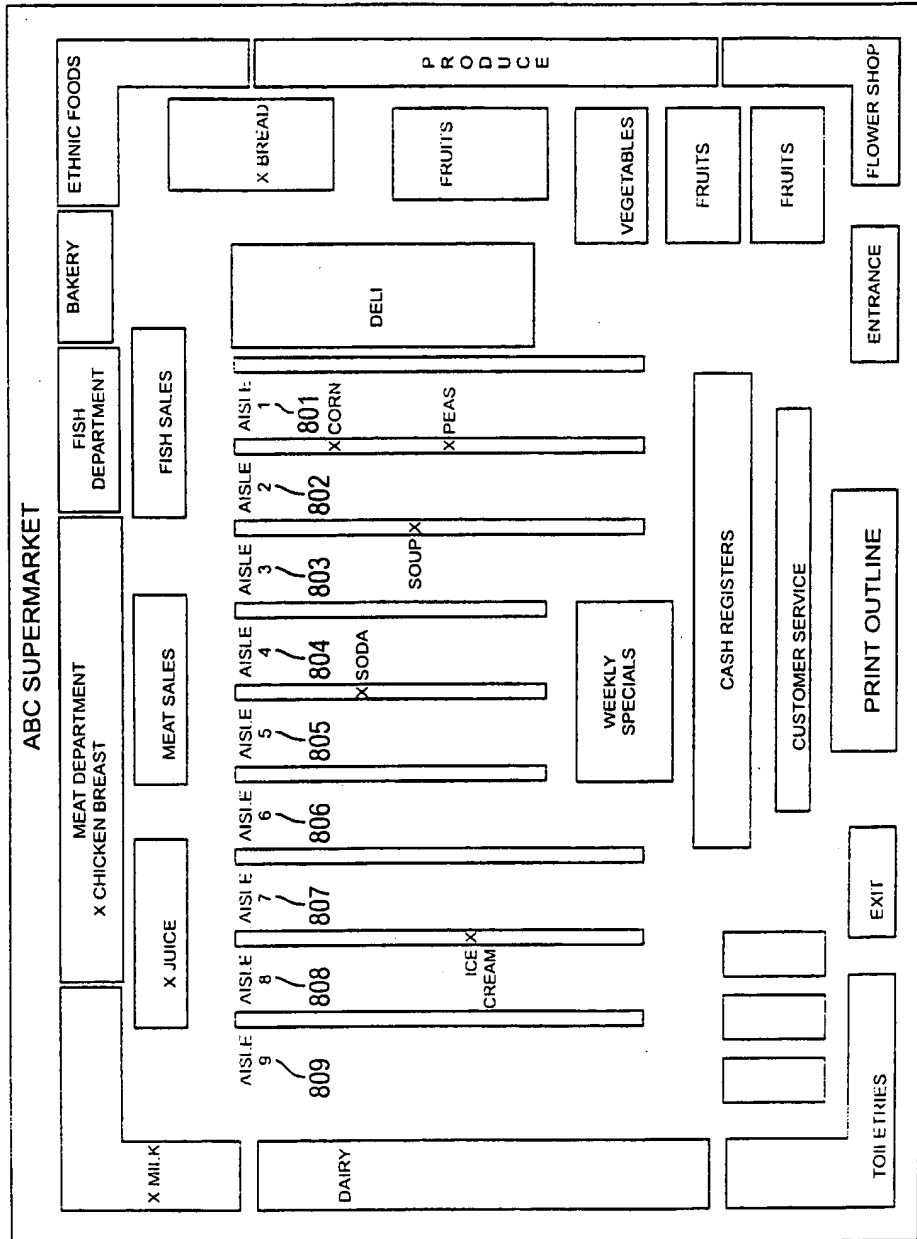


FIG. 8

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COMMUNITY FEEDBACK BOARD

Choose the participating Manufacturer or Retailer ABC, Inc. 909

Tell us what you're thinking.

902

We will relay your message, concern, problem or compliment to the responsible party and forward a personal response from the manufacturer or retailer back to you.

FIG. 9A

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THE SHOPPING LIST EDITOR

You may now pre-edit your shopping list by product ingredients.

Please click on the applicable dietary requirements to pre-edit your shopping list to meet your health needs

Item Name	click here
Peanut Free	
Sugar Free	
Meatless	
Kosher	
Dairy Free	
Fat Free	
Organic	
Salt Free	
Low-Salt (less than __ mg)	
Vegetarian	

Eliminate all foods with the following ingredients:

1.	
2.	
3.	

For nutritional information for items on your shopping list, double click on the item in the shopping list.

FIG. 9B

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MANUFACTURERS' SAVINGS PAGE

Receive manufacturers coupon savings without printing or clipping coupons when you order direct through FoodWagon.Com, Inc.

Manufacturers' coupon savings will be automatically deducted from the total purchase price of your groceries when your order is placed through FoodWagon.Com, Inc.

920

ABC SUPERMARKET	HIJ SUPERMARKET
All Items on Shopping List Available TOTAL: \$8.85	All Items on Shopping List Available TOTAL: \$9.98
Manufacturers' savings on this order \$1.25	Manufacturers' savings on this order \$1.25
DelMonte .50 Libbys .25 Hood .50 } 926	DelMonte .50 Libbys .25 Hood .50
FINAL PURCHASE PRICE: \$7.60	FINAL PURCHASE PRICE: \$8.73

922

924

928

XYZ SUPERMARKET

All Items on Shopping List Available TOTAL: \$9.95
Manufacturers' savings on this order \$1.25
DelMonte .50 Libbys .25 Hood .50
FINAL PURCHASE PRICE: \$8.70

FIG. 9C

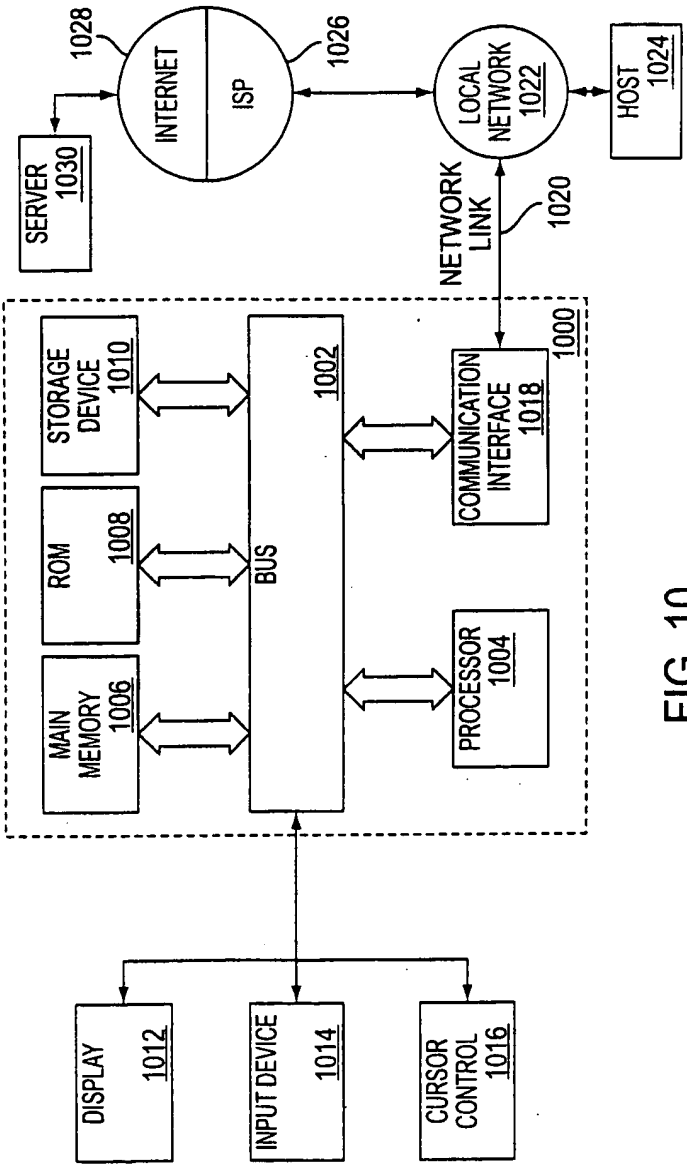


FIG. 10